



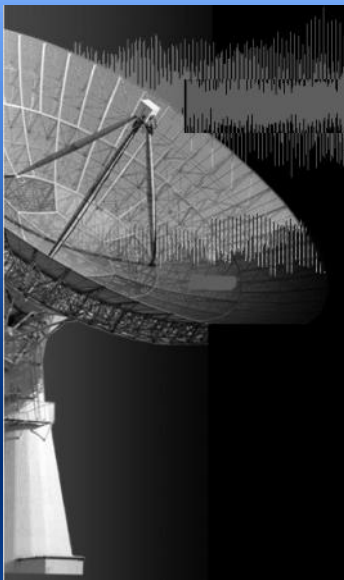
The GARzette

The Official Newsletter of the Gwinnett Amateur Radio Society
March 2016 <http://www.gars.org/> Volume 25, Issue 3



Radio Astronomy

“Radio astronomy is a subfield of *astronomy* that studies celestial objects at *radio*frequencies. The initial detection of *radio* waves from an *astronomical* object was made in the 1930s, when Karl Jansky observed radiation coming from the Milky Way.” [wikipedia.org/wiki/**Radio_astronomy**]



Learn more at our March meeting!

Message from the President

I was so pleased that all of our past officers agreed to perform their duties for another year. Thank you Nick AB4CQ, thank you Nick N0NCQ, thank you Mike ND4V, thank you Sid N4NQ, and thanks to all the Committee Chairman who make this all come together. And yes, you have to put up with me for yet another year. I'm looking forward to serving you all and having a great time doing it! As I have said before, the more of you that participate, the easier the job gets and the more successful our club activities become.



"This year marks GARS 40th anniversary and plans are in the pipeline to celebrate this occasion. We were initially started by a group of engineers from Scientific Atlanta in 1973 and officially chartered in 1976."

We are well into 2016 and GARS events abound for the rest of the year. We are all looking forward to hearing the program from K4CSO, Charles Osborne on Radio Astronomy at the March meeting. Believe it or not, the Memorial Day parade will be on us soon and the April meeting will cover that event. For those of you with friends or family interested in Amateur Radio we have a Ham Cram coming up March 26th. Let them know that this is coming and encourage them to sign up. Some of the members you see in GARS today got their start in one of our Ham Cram sessions. The sessions have been very successful. Check out the GARS.org website for signup information.

This year marks GARS 40th anniversary and plans are in the pipeline to celebrate this occasion. We were initially started by a group of engineers from Scientific Atlanta in 1973 and officially chartered in 1976. Also another great event is coming up this year; the 13 Colonies Special Event. This event is truly fun and easy to participate in. Go to www.13colonies.info for more information. There are some GARS members, including myself, who will be participating in operating stations for Georgia. If you are interested,

speaking to one of our officers or myself and we will get you on the "want to" list.

Another great event on the horizon is the Georgia QSO Party April 9th through the 10th. We will be operating multiple stations from Harbins Park on these two days. It's a great warm-up for field day but with less pressure! Gwinnett ARES will also be having their deployment day that Saturday from 8:30 to 12:00 so come out early and get involved in all the activity.

Many more events are planned for the remainder of the year. I can't mention them all and I have probably already overlooked some. There is Field Day, the September VHF/UHF contest, the ARC/KARC Hamfest and of course the Alford Memorial Stone Mountain Hamfest in November. Stay tuned to the GARS.org website for all the information about these events.

Thanks again your support and hard work.
2016 Rocks for GARS!

Thanks and 73's,

Rick Cobb, N4XYY

"It is not the class of license the Amateur holds, but the class of the Amateur that holds the license."

[Author Unknown]

GARS March Meeting

“A Peek Into Radio Astronomy”

by K4CSO, Charles Osborne

Tuesday, March 9, 2016

7:00 pm

Sports Aviation Complex - Hangar 1
690 Airport Road
Lawrenceville, GA 30045

Directions

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GARS Communications

2 Meter Repeater

147.075(+) MHz
82.5 PL Tone

APRS

144.390 -- 1200 Baud
W4GR

D-Star

WD4STR
145.060 + (1.4 MHz)
440.550 + (5 MHz)

2 Meter Repeater

147.255(+) MHz
107.2 PL Tone

6 Meter Repeater

53.110 (-1 MHz)
No PL tone

70 Cm Repeaters

444.525(+) MHz
82.5 PL Tone
442.100(+)
100 PL Tone

**Don't forget
to support our
advertisers at the
back of the
GARzette.**

The *GARzette* is the official monthly newsletter of the Gwinnett Amateur Radio Society, serving its members and other persons interested in the advancement of the Amateur Radio art.

Original articles, art, and photos are invited and encouraged. Previously copyrighted submissions cannot be accepted for reprinting unless permission from the appropriate publisher is provided in writing along with the information being submitted. If reprints are from publications allowing their unrestricted use, please include a copy of the printed permission contained in the publication.

If possible, bring your articles to the monthly meeting in Microsoft Word or rich text (.rtf) or text or HTML format or by e-mail to n4gyn@arrl.net. Artwork can be accepted in most any graphics format and can be submitted via e-mail to the same address. Alternate means of submittal can be arranged when necessary.

In keeping with the Amateur Radio spirit, permission is hereby granted for the reproduction of The *GARzette* articles by other Amateur Radio club newsletters provided that proper credit is given to the individual author and *The GARzette*.

The *GARzette* is published each month with the assistance of Norm Schklar, WA4ZXV who prints copies for distribution at meetings, etc. and Dave Bruse, W4DTR, who distributes the news letter electronically.

Deadline for submissions is the 28th of each month for inclusion in the following month's issue.

For additional information view our Website at: <http://www.gars.org>

Newsletter Editor: Ray Bailey—N4GYN
770-689-6620 or editor@gars.org



Member QRZ Pages

For a few months we will be featuring the QRZ page of various members of GARS.

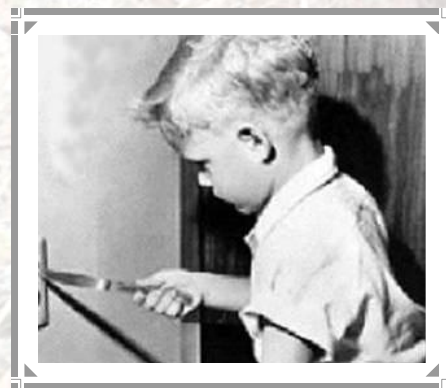
This month we are featuring the QRZ page of :

K7SZ - RICHARD H ARLAND

When you click on the link below you will find this picture of his “shack”.

<http://qrz.com/lookup/k7sz>

Read his notes and get to know him better.
You'll be glad you did.



Here is an excerpt from his page:

“I became a Novice class ham in 1963 (KN7YHA). I have been a practicing QRPer (low power, under 5W RF output Ham Radio) since 1965, when I joined the QRP ARCI (#2388). My current home station consists of a Yaesu FT-991 HF/VHF/UHF transceiver.....”

Watch for another featured GARS member QRZ page in next month's GARzette!

News, Press Releases, & General Interest

From ARRL News

Clarity on Amateur Radio Parity — <http://www.arrl.org/files/file/Regulatory/Clarity%20on%20Parity.pdf>

02/27/2016 | [Vessel with Rich Ham History — the Bowdoin — Being Refurbished for Further Exploring](#)

The schooner Bowdoin, which has a prominent place in early Amateur Radio history, will be relaunched this spring.

02/26/2016 | [ARRL Celebrates its 1000th Educational Amateur Radio Contact with Video](#)

Amateur Radio on the International Space Station (ARISS), the first-ever ISS payload activated by the crew, is gearing up for its 1000th educational ham radio contact in March.

02/22/2016 | [First Solid-State Transmitter to Span the Atlantic Now Part of ARRL Historical Collection](#)

A flea-powered transistorized ham transmitter built in the 1950s and later used to make a transatlantic contact has become part of the ARRL Historical Collection.

To view these links, get your pdf copy of the GARzette here:

<http://gars.org>

HamCram Class

HamCram Technician License Class Saturday, March 26th. 2016

This is an entry level study session.

**Location is the EOC
800 Hi-hope Road
Lawrenceville, GA**



***** Pre-registration is Required ***
There is a no refund policy for no shows.**

See [W5YI](#) for more information on Testing, etc..... The book should be the 2014-2018 version. For more information on the test session [click here](#) to email the instructors.

Technician Class 2014-18 FCC Element 2 Radio License Preparation, 8th Edition
Author: Gordon West, WB6NOA
Publisher: The W5YI Group

Schedule

Study Session: 8:00am to 5:00pm
Thirty Minute Lunch Break with lunch brought in.

Exam Session: 5:00pm to 7:00pm
The exam session is a closed session, only available to those students who sign up for the class.

***To Register go to <http://gars.org> to see this same information
Scroll down to enter your name and email address and click Add to Cart.
You will be taken to PayPal where you can make your payment of \$20.00 which includes lunch.***

Coming Events

The Georgia QSO Party



GARS and the Georgia QSO Party!

2016 marks the **55th consecutive (nearly) year** that the Georgia QSO Party (GQP) has been challenging amateurs all over the world with the best award/plaque program in the US. IN 2015, **323** amateurs submitted logs vying for the thirty-nine award plaques that could be earned.

The GQP is held in a pair of ten-hour sessions on the second full weekend in April; this year that is **April 9-10, 2016**. All or nearly all 159 Georgia counties should be on the air.

GARS GQP Activities - April 9 and 10 at Harbins Park

More about GQP on www.GeorgiaQSOparty.org



Dacula Memorial Day Parade May 30th 2016

0700 at Hebron Baptist Church in Dacula. We will be there to help setup the parade participants.
We will be finished by 1300.



Contact [Earl, AF4FG](#) to get more information or search on this web site.
[Click here to sign up for parade. When finished simply close that window.](#)

Coming Events

MAY MADNESS 2016

The purpose is to get new hams comfortable talking on the air and to help us get familiar with new members and each other. If you talk to a new member you get an extra point. If you talk to an old member you may be talking to someone you don't usually hear on the air. The top ten scores will win a prize to be awarded at the June meeting.

- *Contest begins Friday May 6 at 6:00 PM and ends Sunday May 15 at 11:59 PM*
- *Only GARS members may participate*
- **Bands**
UHF VHF 2 Meters 1.25 Meters 70 cm 33 cm 23 cm Any amateur GHz freq
HF Any HF frequency where Tech class license is allowed to operate
- **Modes**
SSB (voice) FM Digital (CW is a digital mode)
Contacts may be simplex or repeater
- **Frequencies**
Any simplex frequency is allowed Any station can be worked once per band per mode (Once on simplex or repeater. These are not two separate modes)
- **Exchange**
Call Sign. + Old GARS member or New member - add OM or NM (ie. AB4HF/OM or KI4QCI/NM)

2016 Extra Class Study Guide: E9B – Antenna patterns

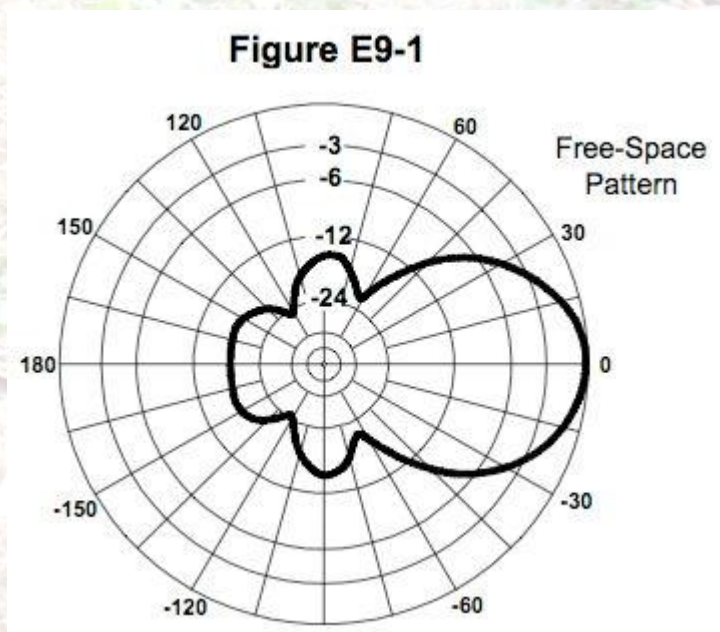
KB6NU's Ham Radio Blog

Posted: 27 Feb 2016 12:16 PM PST

E9B – Antenna patterns: E and H plane patterns; gain as a function of pattern; antenna design

Many amateurs use directional antennas because they are said to have “gain.” When this term is used, what it means is that a directional antenna will output more power in a particular direction than an antenna that is not directional. This only makes sense; You can’t get more power out of an antenna than you put in. Assuming each is driven by the same amount of power, the total amount of radiation emitted by a directional gain antenna compared with the total amount of radiation emitted from an isotropic antenna **is the same**. (E9B07)

To evaluate the performance of directional antennas, manufacturers will measure the field strength at various points in a circle around the antenna and plot those field strengths, creating a chart called the azimuth antenna radiation pattern. Figure E9-1 is a typical azimuth antenna radiation pattern.



The antenna radiation pattern shows the relative strength of the signal generated by an antenna in its “far field.” The far-field of an antenna is **the region where the shape of the antenna pattern is independent of distance**. (E9B12)

From the antenna radiation pattern, we can tell a bunch of things about the antenna. One of them is beamwidth. Beamwidth is a measure of the width of the main lobe of the radiation pattern. To determine the approximate beamwidth in a given plane of a directional antenna, **note the two points where the signal strength of the antenna is 3 dB less than maximum and compute the angular difference**. (E9B08) In the antenna radiation pattern shown in Figure E9-1, **50 degrees** is the 3-dB beamwidth. (E9B01)

Another parameter that’s important for a directional antenna is the front-to-back ratio. In a sense, this is a measure of how directional an antenna really is. The higher this ratio, the more directional the antenna. In the antenna radiation pattern shown in Figure E9-1, **18 dB** is the front-to-back ratio. (E9B02)

(Continued on page 9)

2016 Extra Class Study Guide: E9B – Antenna patterns

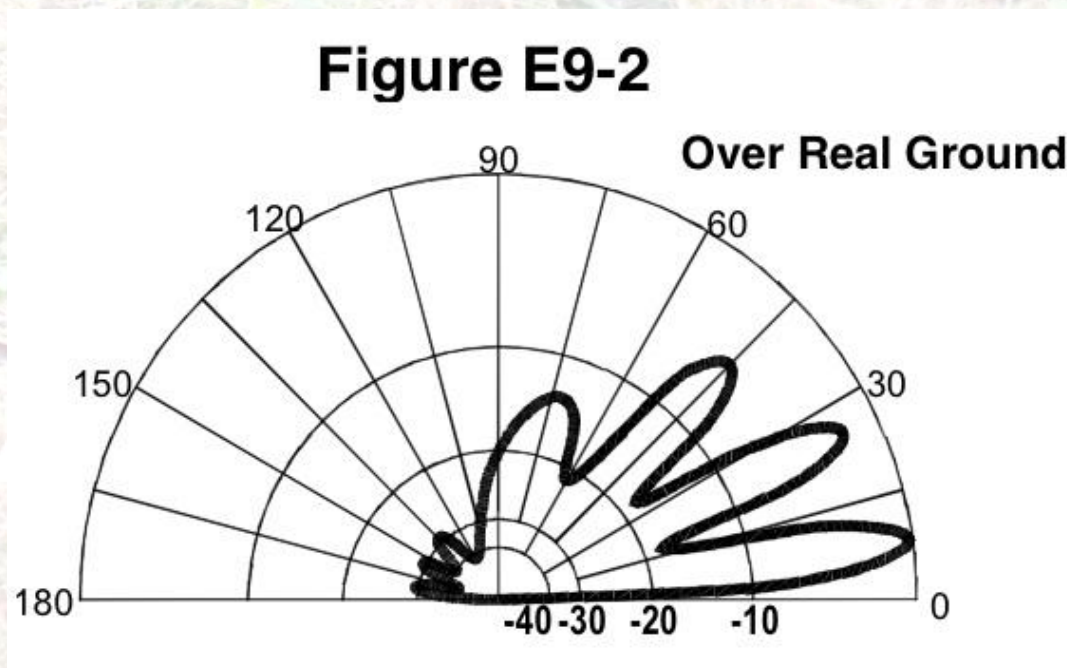
(Continued from page 8)

A similar parameter is the front-to-side ratio. In the antenna radiation pattern shown in Figure E9-1, the front-to-side ratio is **14 dB**. (E9B03)

When reviewing an antenna radiation pattern, you need to remember that the field strength measurements were taken at a particular frequency. When a directional antenna is operated at different frequencies within the band for which it was designed, **the gain may change depending on frequency**. (E9B04)

Many different design factors affect these antenna parameters. For example, if the boom of a Yagi antenna is lengthened and the elements are properly retuned, what usually occurs is that **the gain increases**. (E9B06)

Because antennas radiate in three dimensions, the azimuth antenna pattern tells only part of the story. To get a complete picture of antenna performance, you also want to know what the antenna pattern is in the vertical direction. This type of pattern is called the elevation antenna pattern. An **elevation** antenna pattern over real ground is shown in Figure E9-2. (E9B05)



In the antenna radiation pattern shown in Figure E9-2, **4** elevation lobes appear in the forward direction. (E9B16)

In the antenna radiation pattern shown in Figure E9-2, the elevation angle of peak response is **7.5 degrees**. (E9B06)

The front-to-back ratio of the radiation pattern shown in Figure E9-2 is **28 dB**. (E9B15)

Antenna design

To help design antennas, many amateurs use antenna modeling programs. **All of these choices are correct** when talking about the information obtained by submitting the details of a proposed new antenna to a modeling program (E9B14):

- SWR vs. frequency charts
- Polar plots of the far-field elevation and azimuth patterns
- Antenna gain

(Continued on page 18)

Beginners Corner

I Don't Have the Experience

I have come across many a new ham who was afraid to get on the air or perform a Ham Radio related task. "I don't have the experience" is an oft-quoted line. Some new hams have mic fright. This is normal.

I would like to share some of my own personal experiences. I received my license in 2008. Some months after receiving my license, I bought my first handy-talkie, [A.K.A.] HT. I tried programming it using the directions in the manual. I succeeded in entering a few frequencies. One of them was the GARS 147.075 frequency. I slowly keyed the HT push-to-talk (PTT) button and sent out my call letters. Now, I will explain something. I had served twenty years in the U. S. Air Force as a communications person. I have talked on HF, VHF and UHF frequencies many times during my career. However pressing the PTT on my HT and throwing out my call sign as a Ham Radio operator was a new experience for me! Well after doing that, someone came back to me with his call sign. "What do I do now?" I thought. Clumsily, I made my first communication (QSO) as an Amateur Radio operator. Despite all those years of communicating in the military, I was unprepared for my first Ham Radio QSO, yet got through it. I proceeded on to where it is now second nature to me.

I have recently heard a young 13-year-old ham on the radio. He is a newly licensed ham. Yet despite his young age, he carries on like a professional. Everyone on the air is glad to hear him and has been totally supportive of his Ham Radio adventures. He had his "first time" just in the last few months.

Now, running a net can be foreboding. I know. I remember the first time I did it. I was very nervous. I had the script in front of me and followed it to the letter. Someone came back to me and said that they could barely hear me. Oh well, at least I tried. I learned later that my outdoor antenna had fallen down and was on the ground. No wonder no one could hear me!

My second attempt at running a net was much more successful. I had repaired my antenna. That helped, but I now had some experience in running a net. Certainly it was a bit rough, but no one criticized my efforts. That Gwinnett ARES Net can be a bit tough because it is not a hobby net and you know everyone is listening. You know that many people who will be on that net have had more experience than you have. Yet when it is your turn, you have the script. You read it and follow it to the best of your ability. You know that if you stumble or miss something that no one is going to chew you out. Why? First of all, running a net is voluntary. You will not be punished or even ridiculed for making a mistake. Second, everyone else on whatever net you are running has had a "first time" running a net also. If you are still hesitant, try saying something like, "This is my first time running this net. Please bear with me." This will alert everyone listening that you are new and you are a bit nervous. It also will set yourself at ease as well. Try it. I did. It works.

My point in this is this: never be afraid of doing something new in Ham Radio, whether is it speaking on the radio, running a net, volunteering for an event, or whatever. Every ham you hear on the air has had their "firsts". Nearly everyone remembers their firsts and will often bend over backwards to help you feel comfortable.

I am getting more into digital radio now. I am about to have some more firsts of my own. It will be another adventure for me. You can bet that if I am unsure about what I am doing, I will be typing, "Please bear with me. This is my first time." Then my fun in Amateur Radio will continue. Someone will always be there to help.

73 de *David Harden*, KJ4CMY,

GARS Membership Page

New GARS Members in February

David Bell (KM4PTY)
Joshua Garcia-barreto (KM4OMX)
Gregory Mann (KM4RKT)

New Members: 3

Total Members as of February 29, 2016
- 280-

**Join us for our weekly
breakfast gathering at
7:30 AM most Saturdays**

at

Golden Corral
2155 Riverside Parkway
Lawrenceville, GA 30043

([Directions](#))

**The following members are
celebrating birthdays
in March:**

HAPPY BIRTHDAY!!
From All of Us at GARS

Rich Arland (K7SZ)

Deidra Atkin

David Bruse (W4DTR)

Catherine Corriveau (KM4KAB)

Robert Jones (KD7YDW)

Gregory Kiker (KI1KER)

Jack Mason (KK4ULP)

William Santangelo (KM4EQS)

Robert Smith (KK4KHS)

Bryan Spear (KM4QHG)

Charles Sullivan (N4CHS)

Marvin Whatley (KK4QCI)

Jackson Wiggs (KM4GBJ)

Ed Woodrick (WA4YIH)

GARS MEMBERSHIP

Your current GARS membership status is shown in the monthly newsletter e-mail towards the bottom of the message.

To become a GARS member, or to renew your GARS membership, please visit our website—<http://www.gars.org>

To make changes to your GARS membership (moved, new e-mail address, new phone number, etc.), please e-mail the Membership Committee - membership@gars.org

You can **renew or update** your Amateur Radio license information with the FCC at their website for free <http://wireless.fcc.gov/uls/index.htm?job=home>

To update your ARRL information, please visit their website - <http://www.arrl.org>

Membership Chair: Karen Albritton, KI4HPP
Committee Members: Dave Bruse, W4DTR, Pam Meridy, WB1AKQ

Net Managers Corner

Monday Night 2 Meter “Want, Swap, Sell, and Information Net”

GARS NEEDS MEMBERS TO SERVE AS NET CONTROLLERS

GARS is a great Amateur Radio service club and we have the membership and awards to prove it. Our club is a very busy and active club and we use the Monday night net to get the information out to our members. Weekly participation is needed to make our net function well. There is only a small group of very dedicated people that make the net happen each week, and we need more members to volunteer to serve as Net Control Stations (NCS) on a rotating basis.

Out of almost 300 members, there are only twelve primary people who serve as NCS for the GARS net every Monday night. In no particular order, they are:

Norm - WA4ZXV	Kyle - W4KDA	Mitch - N0DIM
Hal - W4IGE	Don - KW4AL	Ray - N4GYN
Sandy - KJ4DRO	John - WB4QDX	Bill KK4AUA
Kevin - KK4WOG	Chuck - KK4TKJ	Charles - N4CEA

As GARS Net Manager (Chuck KK4TKJ), I need 30 people to fill NCS positions. I do plan to post the schedule months in advance. Any conditions will be accommodated that you, as a rotating NCS, need to place on the scheduling of your duties. If your plans change, I can make adjustments for the schedule to work, and I will make those changes happen as soon as I am notified of a problem. As Net Manager, I also send out reminders each week to let the NCS scheduled know he or she is NCS for the next Monday night net. In short, serving as a rotating NCS is a small duty but a great contribution to the club. The “Want, Swap, Sell Information Net” begins promptly at 19:30 every Monday night and runs about 45 minutes. As a scheduled NCS, you will request the assistance of a volunteer alternate NCS each time you have Net Control. Your simple duties will be to tune in to the GARS repeater, read the script, take a few notes and forward the information to me for record keeping.

Please lend a hand and contact me at KK4TKJ@arrl.net. Sign up to help support the effort that makes GARS the great club that it is.

73 and see you on the Nets!

Chuck McCord. KK4TKJ Net Manager



**Don't miss the “KNOW IT ALL” Net
Wednesday nights, 8:30-9:30 pm**



We have moved to a new format. We begin with current events and announcements. Then we Introduce New Technology. Then we have check-ins and general discussion. Post net is Rag Chew format.

Jeff—AB4HF

Everyone is having great fun on this net! Come join us and become a “KNOW IT ALL”.

TIME: 8:30 every Wednesday evening on the GARS repeater - 2m 147.075 + PL 82.5

ARRL CONTESTING INFO

From ARRL Contest Calendar

>>>> NOTE: For more information click the links <<<<

March 2016

5-6 [International DX- Phone](#)

April 2016

17 [Rookie Roundup - Phone](#)

June 2016

11-13 [June VHF](#)

18 [Kids Day](#)

25-26 [Field Day](#)

July 2016

9-10 [IARU HF World Championship](#)

August 2016

6-7 [August UHF](#)

20-21 [10 GHz & Up - Round 1](#)

21 [Rookie Roundup - RTTY](#)

September 2016

10-12 [September VHF](#)

17-19 [10 GHz & Up - Round 2](#)

24-25 [EME - 2.3 GHz & Up](#)

October 2016

17-21 [School Club Roundup](#)

22-23 [EME - 50 to 1296 MHz](#)

November 2016

5-7 [Nov. Sweepstakes - CW](#)

19-21 [Nov. Sweepstakes - Phone](#)

19-20 [EME - 50 to 1296 MHz](#)

December 2016

2-4 [160 Meter](#)

10-11 [10 Meter](#)

18 [Rookie Roundup-CW](#)



HAMFEST CALENDAR

Southeast US

03/04/2016 | [Alabama Section Convention \(BirmingHamFest\)](#)

Location: Birmingham, AL

Type: ARRL Convention

Sponsor: Birmingham Amateur Radio Club

Website: <http://birminghamhamfest.org>

04/09/2016 | [2016 Mobile Hamfest](#)

Location: Mobile, AL

Type: ARRL Hamfest

Sponsor: Mobile Amateur Radio Club

Website: <http://w4iax.net>

04/23/2016 | [Wiregrass Amateur Radio Club Spring Tailgate](#)

Location: Headland, AL

Type: ARRL Hamfest

Sponsor: Wiregrass Amateur Radio Club

Website: <http://www.w4dhn.org>

04/23/2016 | [Waynesboro Hamfest](#)

Location: Waynesboro, GA

Type: ARRL Hamfest

Sponsor: Burke Amateur Radio Club

Website: <http://waynesborohamfest.com>

04/23/2016 | [Calhoun Hamfest](#)

Location: Sugar Valley, GA

Type: ARRL Hamfest

Sponsor: Cherokee Capital Amateur Radio Society

Website: <http://www.k4woc.com>

05/14/2016 | [DeKalb Amateur Radio Club Tailgate](#)

Location: Fort Payne, AL

Type: ARRL Hamfest

Sponsor: DeKalb County Amateur Radio Club

Website: <http://www.w4qbr.org>

06/04/2016 | [Georgia Section Convention \(Atlanta Hamfest\)](#)

Location: Marietta, GA

Type: ARRL Convention

Sponsor: Atlanta Radio Club (W4DOC) & Kennehoochee Amateur Radio Club (W4BTI)

Website: <http://www.atlantahamfest.com>

BSA Venture Crew 73 Wants You!

IF YOU are between 14 and 21 years old, enjoy outdoor activities, and have an interest in radio technology, **Venture Crew 73 is for you.**

- Venture Crews are part of the Boy Scouts of America.
- *Venture crew 73 is chartered by the Gwinnett Amateur Radio Society.*
- Venture crew 73 is coed.
- *Meetings are on the second Tuesday of the month, 7:00 pm, at EAA 690 Hangar at:
Briscoe Field - Sports Aviation Complex
Hangar 1, 690 Airport Road
Lawrenceville, GA 30045*
- Crew 73 is a youth-run organization, which means that our Crew President and other youth plan the Crew's outings and activities each month.

We enjoy:

- ◇ *Camping*
- ◇ *Hiking*
- ◇ *Horseback Riding*
- ◇ *Shooting Sports*

- Crew activities usually mix high adventure and the use of Amateur Radio.
- For more information, attend our next meeting or contact:

Steve Back, WB2OGY

Venture Crew 73 Committee Chairman

Phone: 770-712-9069

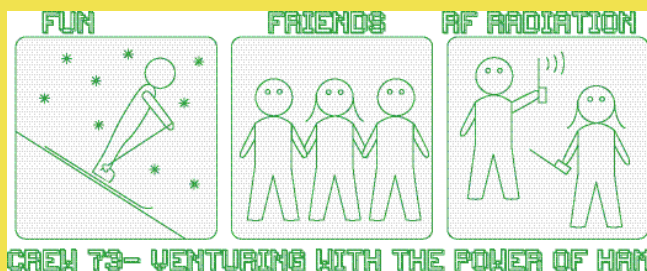
E-mail: committeechair@venturecrew73.org

Ryan Girard, KG4WPB

Venture Crew 73 Advisor

Phone: 770-508-3650

E-mail: rgirard@knights.ucf.edu



G A R S Officers and Committee Chairs

Rick Cobb, N4XYX
President



Mike Weathers, ND4V
Vice President



Nick Doemland, AB4CQ
Secretary



Sid Weaver, N4NQ
Treasurer



Nick Nikley, N0NCQ
Program Manager



Karen Albritton, KI4HPP
Membership Chair



Dave Bruse, W4DTR
Ham Exam Team Leader



David Adcock, KA4KKF
Webmaster, Field Day Chair



Dorothy Jubon, N2DLJ
Public Information Officer



Ralph Pickwick, KJ4CNC
TechFest Chair, Apparel Mgr, Education Chair



Ray Bailey, N4GYN
GARzette Editor



Jeff Cutchins, AB4HF
Multimedia Chair



John Ackermann, N8UR
W4GR Trustee



Eddie Foust, WD4JEM
Repeater Chair



Mike Weathers, ND4V
WAS-Checker, Historian



Chuck McCord, KK4TKJ
Net Manager,



Mike Swiderski, K4HBI
Technical Advisor



Mitch Matteau, N0DIM
Winter Field Day



Pam Meridy, WB1AKQ
QSO Party and VHF Contest Chair



DIRECTORS

Kyle Albritton, W4KDA



David Adcock, KA4KKF



Norm Schklar, WA4ZXV



EXTRA! EXTRA!

APRIL MEETING

EME, Earth-Moon-Earth Communication
(Moon Bounce)

WA4NJP, Ray Rector

<http://www.moonbouncers.org/>

Repeater Status

147.075 operational in Snellville
147.255 operation in Snellville
444.525 operational in Snellville
Link remote receivers being added
442.100 operational at Goshen Springs
145.590 operational at Bogan Road
6M currently down



L&M Mobility
Robert (Mike) Smith
5191 La Paloma Dr.
Lilburn, GA 30047
Phone (404)-509-3104
Smithrm70@hotmail.com
SERVICE & REPAIR
Power Chairs • Lift Chairs • Scooters

GARS Recurring Calendar

- ◆ Monthly club meeting is the 2nd Tuesday of the month at 7 pm
- ◆ Every Monday at 7:30 pm: GARS Want, Swap, Sell, and Information Net +
8:30 pm: ARES Training on the GARS 147.075 MHz repeater
- ◆ Every Wednesday at 8:30 pm: GARS Know It All Net on the GARS 147.075 MHz repeater
- ◆ Every Saturday at 7:30 am: GARS Weekly Breakfast, Golden Corral Restaurant, Riverside Drive, Lawrenceville
- ◆ Second Sunday at 2:00 pm: GARS Ham Exam Session, Fire Station #24
2735 Mall of Georgia Blvd
Buford, GA 30519

FEBRUARY MEETING MINUTES

Rick, N4YXX, called the meeting to order at 7:00pm

First time visitors were welcomed and roundtable introductions were made. Ticket upgrades were recognized:

Attendance: 60

General Business

Sid, N4NQ, gave the treasure's report. Voting took place and the treasure's report was approved

Karen, KI4HPP, gave the membership report: GARS has 283 members

Nick, N0NCQ, Program Manager announced that Charles Osborne, K4CSO will be presenting "A peek into Radio Astronomy" at the March 8th meeting

Future Programs

April 12th – "EME, Earth-Moon-Earth Communication" by Ray Rector, WA4NJP

May 15th – "Field Day Preparation" by David Adcock, KA4KKF

June 14th – "Ice Cream Social"

July 12th – "Remote Control your station" by Ray Bailly, N4GYN

Officer Nominations

President – Rick Cobb, N4XYY

Vice President – Mike Weathers, ND4V

Treasurer – Sid Weaver, N4NQ

Secretary – Nick Doemland, AB4CQ

Program Manager – Nick Nickley, N0NCQ

Event Recaps & General Updates

Winter Field Day

348 QSO made across the bands via Voice, Digital and CW

30 multipliers (10440 +1000 bonus = 11440)

48 members in attendance

Award for most QSO's (64) went to Joe AD4PZ

Rookie Award to Ruth, KM4LAO

Net Schedule

- GARS Want, Swap, Sell and Information, Monday's @ 7:30pm
- ARES Training , Monday's @ 8:30pm
- Know-it-All, hosted by Nick, N0NCQ @ 8:30pm

Program

Rick, N4XYY and Nick, N0NCQ presented Paul Kelley, W4KLY and Vaden McDonald, NN4K with a certification of appreciation for their presentation "Everything about Morse Code"

Upcoming Events

Atlanta Science Festival – 3/26

Technician HamCram – 3/26

Georgia QSO Party – 4/9-10

Fox Hunt – 4/16

May Madness – 5/6 – 5/15

Satellites in the Park – 5/21

13 Colonies Special Event 7/1 - 6

Meeting concluded around 9:00pm

Nick, AB4CQ, Secretary

GARS Calendar of Events for 2016

- GARS Breakfast, every Saturday morning
- GARS Ham Exam Session - 2nd Sunday every month
- ATL Science Festival March 26
- HamCram (Technician) March 26
- Georgia QSO Party April 9 - 10
- North metro area Fox Hunt April - TBD
- May Madness May 6 - 15
- Satellites in the Park May 21
- Memorial Day Parade May 30
- ARC/KARC Hamfest - 1st Saturday of June
- Field Day June 25 - 26
- W4GR Spcl Event - 40th Anniv. Summer
- Maker Faire - 1st Weekend of October
- Sept VHF/UHF Contest Sept 10 - 12
- Stone Mt. Hamfest November 5 & 6
- JOTA - 3rd Weekend of ... October 15

(E9B – Antenna patterns - Cont'd from page 8)

The type of computer program technique commonly used for modeling antennas is **method of moments**. (E9B09) The principle behind a method of moments analysis is that **a wire is modeled as a series of segments, each having a uniform value of current**. (E9B10)

The more segments your simulation uses, the more accurate the results. The problem with using too many segments, though, is that the program will take a very long time to run. You don't want to use too few segments, though. A disadvantage of decreasing the number of wire segments in an antenna model below the guideline of 10 segments per half-wavelength is that **the computed feed point impedance may be incorrect**. (E9B11)

The abbreviation NEC stands for **Numerical Electrodynamics Code** when applied to antenna modeling programs. (E9B13) This is different from the more common definition of NEC, which is the National Electrical Code.

GARS CALENDAR OF EVENTS FOR MARCH 2016

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1 6:30 - 8:00 pm GARS Exec Meeting	2 8:30 - 9:30 pm GARS Know-It-All Net	3	4	5 7:30 - 9:30 am Breakfast at Golden Corral Riverside Drive
6	7 8:00 - 8:30 pm GARS 2m Net	8 5:00 PM - 6:30 PM Dinner at Flying Machine 7:00pm - 9:00pm GARS Meeting	9 8:30 - 9:30 pm GARS Know-It-All Net	10	11	12 7:30 - 9:30 am Breakfast at Golden Corral Riverside Drive
13	14 8:00 - 8:30 pm GARS 2m Net	15	16 8:30 - 9:30 pm GARS Know-It-All Net	17	18	19 7:30 - 9:30 am Breakfast at Golden Corral Riverside Drive
20	21 8:00 - 8:30 pm GARS 2m Net	22	23 8:30 - 9:30 pm GARS Know-It-All Net	24	25	26 HamCram Technician License Class http://gars.org
27	28 8:00 - 8:30 pm GARS 2m Net	29	30 8:30 - 9:30 pm GARS Know-It-All Net	31		

Metro Testing Sessions	Ham Exam Results	Metro Club Meetings
<p><i>GARS publishes Metro Atlanta VE exam schedules as a service and is not responsible for errors or changes. Call and confirm schedules before going. All sessions are walk-in. Take copies of current license and certificate of completed elements with you to all sessions. Find additional sessions online at http://www.arrl-ga.org.</i></p> <p>First Sunday, ODD Months 2 pm (Jan, Mar, May, Jul, Sep, & Nov) VEC: WCARS Braselton Public Utility Building 4986 Highway 53, Braselton, GA Roger Gibson, WB4T (770) 271-4210 or (770) 712-9560 w4rlg@bellsouth.net</p> <p>First Sunday, EVEN Months 2 pm (Feb, Apr, Jun, Aug, Oct, Dec) VEC: WCARS Hall County EOC 470 Crescent Dr. Gainesville, Ga. Perry Roper, KO4RD (770) 536-3056</p> <p>Second Saturday 10:00 AM Alpharetta North Park, Adult Activities Center 13450 Cogburn Rd, Alpharetta, GA 30004 Ian Kahn, KM4IK E-mail: km4ik.ian@gmail.com</p> <p>Second Saturday, ODD Months VEC: ARRL 8:30 a.m. GMC Community Ctr 5325 Leon St. Stone Mountain, GA Frank Haynes, KV4SP (678) 467-3712</p> <p>Second Sunday VEC: W5YI 2 pm Fire Station #24 Mall of Georgia Boulevard Buford, GA 30519 Contact: Dave Bruse, W4DTR E-mail: exams@gars.org</p> <p>Third Saturday VEC: W5YI 2 pm (Except December) Lifeway Church 1654 Atlanta Highway #109 Steve Donellan, N5SMD (404) 520-0368 E-mail: n5smd@comcast.net</p> <p>(cont. next column)</p>	<p>We had 10 applicants at our February Ham Exam:</p> <p>5 new Technicians 1 new General 2 upgrades to General 2 upgrades to Extra</p> <p>The following VE's were present to conduct the testing;</p> <p>Chuck McCord, KK4TKJ, Co-CVE Dave Bruse, W4DTR, CVE Sid Weaver, N4NQ, Co-CVE Bill Cherepy, WB4WTN Nick Doemland, AB4CQ Frank Haynes, KV4SP Donna McCord, KM4FMW Allison Lynch, AB4YL Dale Lynch, AE8DL</p> <p>73,</p> <p><i>Chuck McCord, KK4TKJ,</i> Co-CVE</p> <p>GARS VE Team Leader E-mail: exams@gars.org</p> <p>GARS VE Website: http://groups.yahoo.com/group/GARS_VE_Team/</p> <div> </div> <p>Fourth Tuesday ARRL VEC 7 pm @ United Way Service Center 6279 Fairburn Rd., Douglasville Jessie Clower, KB4WFK (770) 942-6466</p> <p>Fourth Sunday 2:30 pm Georgia Tech VanLeer Elec. Building Rm. W218, 777 Atlantic Dr. See www.w4aql.com Alexander G. Carver (404) 894-2936 acarver@ece.gatech.edu</p>	<p>First Tuesday Kennehoochee ARC Downtown Marietta Fire Station #1, Training Room 112 Haynes Street Marietta, Georgia 30060 Meeting begins at 7:00pm Talk In 146.880(-)</p> <p>First Thursday Atlanta Radio Club Georgia Red Cross HQ 1955 Monroe Dr., Atlanta Meeting is at 7:30pm Talk In -146.820(-) N.E. Georgia ARC Commerce Public Library Meeting is at 6:30pm Talk In - 147.225(+) PL 123.0</p> <p>Second Monday Georgia Tech ARC Room W218 Van Leer Electrical Engineering Bldg. Georgia Tech Campus Meeting at 7:00pm</p> <p>Second Thursday Alford Memorial Radio Club Annistown Road Baptist Church Intersection of Annistown Rd & Spain Rd Stone Mountain Dinner at 6:00pm Meeting at 7:30pm Talk In - 146.760(-)</p> <p>Second Saturday North GA QRP Club Board Room of The Shepherd Center at 2020 Peachtree Rd, NW, Atlanta at 10:00 AM</p> <p>Third Tuesday North Fulton Amateur Radio League Alpharetta Recreation & Parks Dept Alpharetta Adult Activity Center 13450 Cogburn Road Alpharetta, GA 30004 meeting at 7:30pm Talk In - 145.47(-) For more, go to: http://www.gars.org/</p>

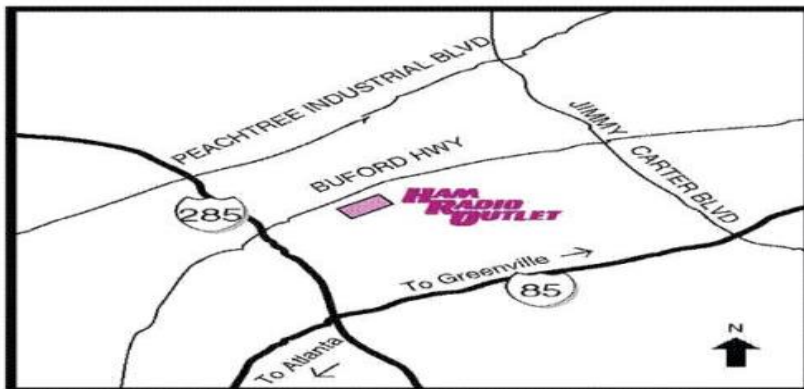
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